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## INCOME OF SMALL-SCALE FISHERMAN IN COASTAL AREA

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### Abstrak

*This research was conducted in the Lingkas Ujung Village which aims to determine the effect of fishermen's income on improving the economy of coastal communities in Tarakan City (Case Study: Lingkas Ujung Village). This study uses a quantitative descriptive approach, using simple linear regression to explain the influence between variables. Based on the analysis results, fishermen's income positively and significantly improved the community's economy in Lingkas Ujung Village. The value of the coefficient of determination (R<sup>2</sup>) is 0.292, this indicates that there is a strong relationship between the fishermen's income variable and the increase in the community's economy.*

**Keywords:** Fishermen's Income; Improvement of the Community's Economy

**JEL Classification:** D63, O13

## 1. INTRODUCTION

Indonesia is an archipelagic country where most of its territory consists of oceans. The Indonesian sea which is wider than the land area makes marine resources rich in potential. Coastal and marine areas have various natural resources with high economic value.

Communities who live in coastal areas and work as fishermen have not been able to take advantage of the abundant wealth of natural resources, this is reflected in the welfare of coastal communities (Chen, Hsu, & Chuang, 2020; Fenichel, Abbott, & Yun, 2018). The level of fishermen's welfare is largely determined by the catches obtained along with the number of catches, reflecting the amount of income fishermen will receive (Kar, 2021; Yang, Chiang, & Liu, 2022).

The catch of fishermen represents the income of individuals or groups of fishermen. Fishermen's activities illustrate the link between the amount of output and the number of workers to create value from the output produced (I Gede, Wiagustini, & Meydianawathi, 2014; Pratiwi & Rahmawati, 2018; Allegretti, 2019). Empirical results show that the higher the fishermen's operational costs for going to sea, the higher their income potential (Anna, Yusuf, Alisjahbana, Ghina, & Rahma, 2019; Tikadar, Islam, Saha, Alam, Barman, & Rahman, 2022).

The community settlements in Tarakan City are located in one of the sub-districts, Lingkas Ujung Village, with the most of the population working as fishermen. Fishermen living in the Lingkas Ujung Village area consist of cultivation fishermen or capture fishermen. Basically, fishermen in the Lingkas Ujung Village still uphold the value of local wisdom, namely helping each other and mutual cooperation.

The economic conditions of people who work as fishermen experience uncertainty about income, sometimes they are able to meet their daily needs but in certain conditions fishermen are unable to fulfill their daily needs (Outeiro, Villasante, & Sumaila, 2018; Boubekri, Mazurek, Djebar, & Amara, 2022). This depends on natural conditions which are also uncertain, tidal

currents are unstable ( Boubekri, Mazurek, Djebbar, & Amara, 2022), Inadequate fishing gear, high prices of goods needed ( Agimass & Mekonnen, 2011; Selvaraj, Guerrero, Cifuentes-Ossa, & Alvis, 2022). This has an impact on people's income so that fishermen are unable to meet their needs properly.

## 2. RESEARCH METHOD

### 2.1 Object and Research Location

This research was conducted in the East Coast region of Tarakan City, namely in the Lingkas Ujung Village, which included several RT which were used as research locations which were located at RT.08, RT.16, RT.17, and RT.18.

### 2.2 Data Collection

This study used several methods in collecting data, namely through the distribution of lifts given to each respondent who works as a fisherman and lives in Lingkas Ujung Village. Then, researchers also used data collection techniques through documentation in the form of pictures or the necessary data obtained from the local government.

### 2.2 Data Analysis

The basic method used is descriptive analysis and quantitative methods using simple regression analysis to determine the effect of fishermen's income on improving the economy of coastal communities in Lingkas Ujung Village. The following is a simple linear regression equation:

$$Y = a + b_1X + e$$

Description:

Y = Community Economic Improvement

X = Fishermen's Income

$\alpha$  = Constant

b = Regression coefficient

e = Standard Error

## 3. RESULTS AND DISCUSSION

### 3.1 Characteristics of Respondents Based on Fishermen's Income Variables

Fishermen's income from fishing is a hope for fishermen to meet their daily needs. The income of each fisherman certainly varies, depending on the productivity of the fisherman (Njoku, 2004; Kar, 2021). Based on the research results, it is known that as many as 46 fishermen or 53% of fishermen strongly agree that the income received by fishermen comes from fishing. As many as 24 or 28% of the Lingkas Ujung Village fishermen stated that the fishermen's income comes from fishing. As many as 17 people or as many as 20% of fishermen stated that they did not agree that fishermen's income was received from fishing.

### 3.2 Characteristics of Respondents Based on Community Economic Improvement Variables

The people who live in the coastal area of Lingkas Ujung Village work as fishermen, this is done in the hope of being able to meet their daily needs. Based on the results of the research, it was found that as many as 31 people strongly agreed or equivalent to 36% of fishermen who thought that the income earned from fishing activities was to meet their daily basic needs. As many as 38 fishermen or the equivalent of 44% agreed that the income from fishing activities was to meet food needs. As many as 17 people or the equivalent of 20% stated that they did not agree that the income derived from fishing activities was to meet food

needs. Meanwhile, 1 fisherman or as much as 1% was of the opinion that they strongly disagreed that the income derived from fishing activities was to meet food needs.

### 3.3 The Effect of Income on Community Economic Improvement

Based on the results of data processing using the SPSS program, a simple linear regression equation is obtained, namely:

$$Y = 3,307 + 0,234X + e$$

Based on the results of the regression equation, it shows that the constant value is 3.307, if the value of the independent variable is equal to 0.

The regression coefficient value is 0.234. This shows that the value of increasing the community's economy has a positive sign where every time there is an increase in economic value by 1%, the income value of fishermen in Lingkas Ujung Village increases by 0.234 percent assuming that fishermen's income is fixed or constant.

### 3.4 Koefisien Determinasi test ( $R^2$ )

The coefficient of determination shows how much the independent variable can explain the dependent variable. Based on the simple linear regression analysis results, the coefficient of determination ( $R^2$ ) is 0.085. This means that the fishermen's income variable affects the community's economic improvement variable by 8.5%, the remaining 91.5%, which means that it is influenced by other factors that do not enter into in models.

### 3.5 T test (Partial test)

Based on the results of partial or individual significance tests, it is known that the tcount is 2.812 with a significance value of 0.0006. The income variable shows that the tcount value of 2.812 is greater than the ttable so it can be concluded that fishermen's income has an effect on improving the community's economy in Lingkas Ujung Village (Wekke & Cahaya, 2015; Gamarra, et al., 2023).

## 4 CONCLUSIONS

### 4.1 Conclusions

Based on the results of research and statistical testing, several conclusions can be drawn, as follows:

- a. Fishermen's income positively and significantly improves the community's economy in Lingkas Ujung Village. If fishermen's income increases, there will be an increase in the community's economy which will have an impact on community activities with the assumption that the fishermen's income variable is fixed.
- b. Based on the test results of the coefficient of determination ( $R^2$ ) shows that the coefficient value is 0.085. This means that the fishermen's income variable affects the community's economic improvement by 8.5% while the remaining 91.5% is influenced by other variables that are not included in the model.

### 4.2 Recommendation

Based on the results of the research that has been done, there are several suggestions that the author conveys, namely:

- a. In an effort to improve the welfare of fishermen in the Lingkas Ujung Village, the City Government should focus on and provide assistance to low-income fishermen.
- b. Efforts to increase the income of fishermen in the Lingkas Ujung Village need to be given counseling by the relevant agencies regarding the feasibility of marine activities

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